

## 9. BEHAVIORAL SYMPTOMS RAP KEY

(For MDS Version 2.0)

TRIGGER – REVISION	GUIDELINES
<p><i>Review of behavior status suggested if one or more of following present:</i></p> <ul style="list-style-type: none"> <li>• Wandering* [E4aA = 1, 2, 3]</li> <li>• Verbally Abusive [E4bA = 1, 2, 3]</li> <li>• Physically Abusive [E4cA = 1, 2, 3]</li> <li>• Socially Inappropriate [E4dA = 1, 2, 3]</li> <li>• Resists Care [E4eA = 1, 2, 3]</li> <li>• Behavior Improved [E5 – 1]</li> </ul> <p><small>* Note: This item also triggers on the Fall RAP.</small></p>	<p><i>Review and describe behavioral symptoms:</i></p> <ul style="list-style-type: none"> <li>• <b>Evaluating the Seriousness and Stability/Change of Behavioral Symptoms</b> - Review of intensity, duration, frequency and, if any, pattern of behaviors, their development over time, and their effect on the resident and others [E4aB, E4bB, E4cB, E4dB, E4eB, from record]</li> </ul> <p><i>Review potential causes that would be addressed or resolved:</i></p> <ul style="list-style-type: none"> <li>• <b>Cognitive Status Problems</b> - Delirium [B5], Alzheimer's Disease [I1q] or Other Dementia [I1u], Effects of Stroke [C4, C5, C6, G5, G6, I1r, I1t]</li> <li>• <b>Mood or Relationship Problems</b> - Sad or Anxious Mood [E1], Unsettled Relationships [F2], Psychiatric Diagnosis [I1dd, I1ee, I1ff, I1gg]</li> <li>• <b>Environmental Conditions</b> - Departure from Resident's Normal Routines Prior to Entering Facility [F3c], Staff Responses, Presence of Stressful Conditions of Physically Aggressive Resident [from record, interviews with staff, resident]</li> <li>• <b>Illness/Conditions</b> - Onset of Acute Illness, Worsening of Chronic Illness [J5a,b], and Other Related Problems, such as Constipation [H2b], Diabetes [I1a], CHF [I1f], Pneumonia [I2e], Septicemia [I2g], UTI [I2j], or Other Infection [I2, I3], Fever [J1h], Delusions [J1e], Hallucinations [J1i], Pain [J2], Fall with Physical Trauma to Head [J4a,b; I1cc]</li> <li>• <b>Communication Deficits</b> - Difficulty Making Self Understood [C4], or Understanding Others [C6]</li> <li>• <b>Sensory Impairments</b> - Hearing Problem [C1], Visual Problem [D1], Visual Limitations [D2]</li> </ul> <p><b>Treatment /Management Procedures</b> – Anti-psychotics, Antianxiety, Antide-pressants, Hypnotics [O4a,b,c,d], Behavior Management Program [P2], Trunk, Limb or Chair Restraints [P4c,d,e]</p>

## 10. RESIDENT ASSESSMENT PROTOCOL: ACTIVITIES

### I. PROBLEM

The Activities RAP targets residents for whom a revised activity care plan may be required to identify those residents whose inactivity may be a major complication in their lives. Resident capabilities may not be fully recognized: the resident may have recently moved into the facility or staff may have focused too heavily on the instrumental needs of the resident and may have lost sight of complications in the institutional environment.

Resident involvement in passive as well as active activities can be as important in the nursing facility as it was in the community. The capabilities of the average resident have obviously been altered as abilities and expectations change, disease intervenes, situational opportunities become less frequent, and extended social relationships less common. But something that should never be overlooked is the great variability within the resident population: many will have ADL deficits, but few will be totally dependent; impaired cognition will be widespread, but so will the ability to apply old skills and learn new ones; and sense may be impaired, but some type of two-way communication is almost always possible.

For the nursing facility, activity planning is a universal need. For this RAP, the focus is on cases where the system may have failed the resident, or where the resident has distressing conditions that warrant review of the activity care plan. The types of cases that will be triggered are: (1) residents who have indicated a desire for additional activity choices; (2) cognitively intact, distressed residents who may benefit from an enriched activity program; (3) cognitively deficient, distressed residents whose activity levels should be evaluated; and (4) highly involved residents whose health may be in jeopardy because of their failure to “slow down.”

In evaluating triggered cases, the following general questions may be helpful:

- Is inactivity disproportionate to the resident's physical/cognitive abilities or limitations?
- Have decreased demands of nursing facility life removed the need to make decisions, to set schedules, to meet challenges? Have these changes contributed to resident apathy?
- What is the nature of the naturally occurring physical and mental challenges the resident experiences in everyday life?
- In what activities is the resident involved? Is he/she normally an active participant in the life of the unit? Is the resident reserved, but actively aware of what is going on around him/her? Or is he/she unaware of surroundings and activities that take place?
- Are there proven ways to extend the resident's inquisitive/active engagement in activities?
- Might simple staff actions expedite resident involvement in activities? For example: Can equipment be modified to permit greater resident access of the unit? Can the resident's location or position be changed to permit greater access to people, views, or programs? Can time and/or distance limitations for activities be made less demanding without destroying the challenge? Can staff modes of interacting with the resident be more accommodating, possibly less threatening, to resident deficits?

## II. TRIGGERS

### **ACTIVITIES TRIGGERS A (Revise)**

*Consider revising activity plan if one or more of following present:*

- Involved in Activities Little or None of Time  
[N2 = 2, 3]
- Prefers Change in Daily Routine  
[N5a = 1, 2]  
[N5b = 1, 2]

### **ACTIVITIES TRIGGERS B (Review)**

*Review of activity plan suggested if both of following present:*

- Awake all or most of time in morning  
[N1a = checked]
- Involved in activities most of time  
[N2 = 0]

## III. GUIDELINES

The followup review looks for factors that may impede resident involvement in activities. Although many factors can play a role, age as a valid impediment to participation can normally be ruled out. If age continues to be linked as a major cause of lack of participation, a staff education program may prove effective in remedying what may be overprotective staff behavior.

### **Issues to Consider as Activity Plan is Developed**

***Is Resident Suitably Challenged, Overstimulated?*** To some extent, competence depends on environmental demands. When the challenge is not sufficiently demanding, a resident can become bored, perhaps withdrawn, may resort to fault-finding and perhaps even behave mischievously to relieve the boredom. Eventually, such a resident may become less competent because of the lack of challenge. In contrast, when the resident lacks the competence to meet challenges presented by the surroundings, he or she may react with anger and aggressiveness.

- Do available activities correspond to resident lifetime values, attitudes, and expectations?
- Does resident consider “leisure activities” a waste of time - he/she never really learned to play, or to do things just for enjoyment?
- Have the resident’s wishes and prior activity patterns been considered by activity and nursing professionals?

- Have staff considered how activities requiring lower energy levels may be of interest to the resident - e.g., reading a book, talking with family and friends, watching the world go by, knitting?
- Does the resident have cognitive/functional deficits that either reduce options or preclude involvement in all/most activities that would otherwise have been of interest to him/her?

### **Confounding Problems to be Considered**

***Health-Related Factors That May Affect Participation in Activities*** - Diminished cardiac output, an acute illness, reduced energy reserves, and impaired respiratory function are some of the many reasons that activity level may decline. Most of these conditions need not necessarily incapacitate the resident. All too often, disease-induced reduction of activity may lead to progressive decline through disuse, and further decrease in activity levels. However, this pattern can be broken: many activities can be continued if they are adapted to require less exertion or if the resident is helped in adapting to a lost limb, decreased communication skills, new appliances, and so forth.

- Is resident suffering from an acute health problem?
- Is resident hindered because of embarrassment/unease due to presence of health-related equipment (tubes, oxygen tank, colostomy bag, wheelchair)?
- Has the resident recovered from an illness? Is the capacity for participation in activities greater?
- Has an illness left the resident with some disability (e.g., slurred speech, necessity for use of cane/walker/wheelchair, limited use of hands)?
- Does resident's treatment regimen allow little time or energy for participation in preferred activities?

### **Other Issues To Be Considered**

***Recent Decline, in Resident Status - Cognition, Communication, Function, Mood, or Behavior*** - When pathologic changes occur in any aspect of the resident's competence, the pleasurable challenge of activities may narrow. Of special interest are problematic changes that may be related to the use of psychoactive medications. When residents or staff overreact to such losses, compensatory strategies may be helpful - e.g., impaired residents may benefit from periods of both activity and rest; task segmentation can be considered; or available resident energies can be reserved for pleasurable activities (e.g., using usual stamina reserves to walk to the card room, rather than to the bathroom) or activities that have individual significance (e.g, sitting unattended at a daily prayer service rather than at group activity program).

- Has staff or the resident been overprotective? Or have they misread the seriousness of resident cognitive/functional decline? In what ways?
- Has the resident retained skills, or the capacity to learn new skills, sufficient to permit greater activity involvement?

- Does staff know what the resident was like prior to the most recent decline? Has the physical/other staff offered a prognosis for the resident's future recovery, or change of continued decline?
- Is there any substantial reason to believe that the resident cannot tolerate or would be harmed by increased activity levels? What reasons support a counter opinion?
- Does resident retain any desire to learn or master a specific new activity? Is this realistic?
- Has there been a lack of participation in the majority of activities which he/she stated as preference are as even though these types of activities are provided?

***Environmental Factors*** - Environmental factors include recent changes in resident location, facility rules, season of the year, and physical space limitations that hinder effective resident involvement.

- Does the interplay of personal, social, and physical aspects of the facility's environment hamper involvement in activities? How might this be addressed?
- Are current activity levels affected by the season of the year or the nature of the weather during the MDS assessment period?
- Can the resident choose to participate in or to create an activity? How is this influenced by facility rules?
- Does resident prefer to be with others, but the physical layout of the unit gets in the way? Do other features in the physical plant frustrate the resident's desire to be involved in the life of the facility? What corrective actions are possible? Have any been taken?

***Changes in Availability of Family/Friends/Staff Support*** - Many residents will experience not only a change in residence but also a loss of relationships. When this occurs, staff may wish to consider ways for resident to develop a supportive relationship with another resident, staff member or volunteer that may increase the desire to socialize with others and/or to participate in activities with this new friend.

- Has a staff person who has been instrumental in involving a resident in activities left the facility/been reassigned?
- Is a new member in a group activity viewed by a resident as taking over?
- Has another resident who was a leader on the unit died or left the unit?
- Is resident shy, unable to make new friends?
- Does resident's expression of dissatisfaction with fellow residents indicate he/she does not want to be a part of an activities group?

***Possible Confounding Problems to be Considered for Those Now Actively Involved in Activities*** - Of special interest are cardiac and other diseases that might suggest a need to slow down.

## 10. ACTIVITIES RAP KEY

(For MDS Version 2.0)

TRIGGER – REVISION	GUIDELINES
<p><b><u>ACTIVITIES TRIGGERS A (Revise)</u></b></p> <p><i>Consider revising activity plan if one or more of following present:</i></p> <ul style="list-style-type: none"> <li>Involved in Activities Little or None of Time [N2=2, 3]</li> <li>Prefers Change in Daily Routine [N5a=1, 2] [N5b=1, 2]</li> </ul> <p><b><u>ACTIVITIES TRIGGERS B (Review)</u></b></p> <p><i>Review of activity plan suggested if both of following present:</i></p> <ul style="list-style-type: none"> <li>Awake All or Most of Time in Morning [N1a = checked]</li> <li>Involved in Activities Most of Time [N2 = 0]</li> </ul>	<p><i>Issues to be considered as activity plan is developed:</i></p> <ul style="list-style-type: none"> <li>Time in Facility [AB1].</li> <li>Cognitive Status [B2, B4]</li> <li>Walking/Locomotion Pattern [G1c,d,e,f]</li> <li>Unstable Acute/Chronic Health Conditions [J5a,b]</li> <li>Number of Treatments Received [P1]</li> <li>Use of Psychoactive Medications [O4a,b,c,d]</li> </ul> <p><i>Confounding problems to be considered:</i></p> <ul style="list-style-type: none"> <li>Performs Tasks Slowly and at Different Levels (Reduced Energy Reserves) [G8c,d]</li> <li>Cardiac Dysrhythmias [I1e]</li> <li>Hypertension [I1h]</li> <li>CVA [I1t]</li> <li>Respiratory diseases [I1hh, I1ii]</li> <li>Pain [J2]</li> </ul> <p><i>Other issues to be considered:</i></p> <ul style="list-style-type: none"> <li>Customary Routines [AC]</li> <li>Mood [E1, E2] and Behavioral Symptoms [E4]</li> <li>Recent Loss of Close Family Member/Friend or Staff [F2f; from record]</li> <li>Whether or Not Daily Routine is Very Different from Prior Pattern in the Community [F3c]</li> </ul>

## 11. RESIDENT ASSESSMENT PROTOCOL: FALLS

### I. PROBLEM

Falls are a leading cause of morbidity and mortality among the elderly who reside in nursing facilities. Approximately 50% of residents fall annually, and 10% of these falls result in serious injury, especially hip fractures. Most elders are afraid of falling and this fear can limit their activities. Falls may be an indicator of functional decline and the development of other serious conditions such as delirium, adverse drug reactions, dehydration, and infections. External risk factors include medication side effects, the use of appliances and restraints, and environmental conditions. This RAP provides a systematic approach to the evaluation of a fall and assessment guidelines to assist staff in identifying common fall risk factors and developing care plan interventions.

### II. TRIGGERS

*Potential for additional falls [A] or risk of initial fall [R] suggested if one or more of following present:*

- Fell in Past 30 Days (*Additional*)<sup>(c)</sup>  
[J4a = checked]
- Fell in Past 31-180 Days (*Additional*)<sup>(c)</sup>  
[J4b = checked]
- Wandering (*Risk*)<sup>(a)</sup>  
[E4aA = 1,2,3]
- Dizziness (*Risk*)<sup>(c)</sup>  
[J1f = checked]
- Use of Trunk Restraint (*Risk*)<sup>(b)</sup>  
[P4c = 1,2]
- Use of Antianxiety Drugs (*Risk*)<sup>(d)</sup>  
[O4b = 1-7]
- Use of Antidepressant Drugs (*Risk*)<sup>(d)</sup>  
[O4c = 1-7]

<sup>(a)</sup> **Note:** This item also triggers on the Behavior Symptom RAP.

<sup>(b)</sup> **Note:** Code 2 also triggers on the Pressure Ulcer RAP. Both codes trigger on the Physical Restraint RAP.

<sup>(c)</sup> **Note:** This item also triggers on the Psychotropic Drug Use RAP (when psychotropic drugs present).

<sup>(d)</sup> **Note:** When present with specific condition, this item is part of trigger on Psychotropic Drug Use RAP.

### III. GUIDELINES

To reach a decision on a care plan, begin by reviewing whether or not one or more of the major risk factors listed on the RAP KEY are present. Clarifying information on the nature of the risk or type of issue to be considered for the RAP KEY items follows.

#### **Multiple Falls: Is There a Previous History of Falls, or was the Fall an isolated Event?**

Refer to the MDS, reports of the family, and incident reports.

#### **Internal Risk Factors**

Review to determine whether or not the items listed on the RAP KEY under the following headings are present. Each of these represents an underlying health problem or condition that can cause falls and may be addressed so as to prevent future falls.

- Cardiovascular
- Neuromuscular/Functional
- Orthopedic
- Perceptual
- Psychiatric or Cognitive

#### **External Risk Factors**

These risk factors can often be modified to reduce the resident's risk of falls.

***Medications*** - Certain drugs can produce falls by causing related problems (hypotension, muscle rigidity, impaired balance, other extrapyramidal side effects [e.g., tremors], and decreased alertness). These drugs include: antipsychotics, antianxiety/hypnotics, antidepressants, cardiovascular medications, and diuretics.

- Were these medications administered prior to or after the fall?
- If prior to the fall, how close to it were they first administered?

#### ***Appliances and Devices:***

- If the resident who falls (or is at risk of falling) uses an appliance, observe his/her use of the appliance for possible problems.
- Review the MDS and the resident's record to determine whether or not restraints were used prior to the fall and might have contributed to the fall, (e.g., causing a decline function or an increase in agitation).

***Environmental/Situational Hazards*** - Many easily modifiable hazards (e.g., poor lighting, patterned carpeting, poorly arranged furniture) in the environment may cause falls both in relatively healthy and in frail elderly residents.



**For Those who have Fallen Previously, Review the Circumstances under which the Fall Occurred**

Attempt to gather information on most recent fall. Needed information includes:

- Time of day, time since last meal.
- Was resident doing usual or unusual activity?
- Was he/she standing still or walking? Reaching up or down? Not reaching?
- Was resident in a crowd of people? Responding to bladder/bowel urgency?
- Was there glare or liquid on floors? Foreign objects in walkway? New furniture placement or other changes in environment?
- Is there a pattern of falls in any of the above circumstances?
- If you know what the resident was doing during the fall, have her/him perform that activity and observe (protect resident to ensure that a fall does not occur during this test).

**Take Necessary Vital Signs**

- At time of fall, obtain supine and upright blood pressure and heart rate, IF the resident does not have a serious injury such as a fracture of the hip or lower extremity.
- When reproducing circumstances of a fall (e.g., if the resident fell 10 minutes after eating a large meal, take vital signs 10 minutes after the residents eats).
- Measure blood pressure and heart rate when the resident is supine AND 1 and 3 minutes after standing; note temperature and respiratory rate.

**For Residents at Risk of Future Falls, Review Environmental/Situational Factors to Determine Whether or Not Modifications are Needed**

- Observe resident's usual pattern of interaction with his/her environment -- the way he/she gets out of bed, walks, turns, gets in and out of chairs, uses the bathroom. Observations may reveal environmental solutions to prevent falls.
- Observe him/her get out of bed, walking 20 feet, turn in a 360° circle, standing up from a chair without pushing off with his/her arms (fold arms in front), and using the bathroom.

## 11. FALLS RAP KEY

(For MDS Version 2.0)

TRIGGER – REVISION	GUIDELINES
<p><b>Potential for additional falls or risk of initial fall suggested if one or more of following present:</b></p> <ul style="list-style-type: none"> <li>Fell in past 30 Days (<i>Additional</i>)<sup>(C)</sup> [J4a = checked]</li> <li>Fell in Past 31-180 Days (<i>Additional</i>)<sup>(C)</sup> [J4b = checked]</li> <li>Wandering (<i>Risk</i>)<sup>(a)</sup> [E4aA = 1, 2, 3]</li> <li>Dizziness (<i>Risk</i>)<sup>(C)</sup> [J1f = checked]</li> <li>Use of Trunk Restraint (<i>Risk</i>)<sup>(b)</sup> [P4c = 1, 2]</li> <li>Use of Antianxiety Drugs (<i>Risk</i>)<sup>(d)</sup> [O4b = 1-7]</li> <li>Use of Antidepressant Drugs (<i>Risk</i>)<sup>(d)</sup> [O4c = 1-7]</li> </ul> <p><sup>(a)</sup> <b>Note:</b> This item also triggers on the Behavior Symptom RAP.</p> <p><sup>(b)</sup> <b>Note:</b> Code 2 also triggers on the Pressure Ulcer RAP. Both codes trigger on the Physical Restraint RAP.</p> <p><sup>(c)</sup> <b>Note:</b> This item also triggers on the Psychotropic Drug Use RAP (when psychotropic drugs present).</p> <p><sup>(d)</sup> When present with specific condition, this item is part of trigger of Psychotropic Drug Use RAP.</p>	<p><b>Review risk factors for falls to identify problems that may be addressed/resolved:</b></p> <ul style="list-style-type: none"> <li><b>Multiple Falls.</b> [J4a,J4b]</li> <li><b>Internal Risk Factors.</b> <ul style="list-style-type: none"> <li><b>Cardiovascular:</b> Cardiac Dysrhythmia [I1e]</li> <li><b>Neuromuscular/Functional:</b> Loss of Arm or Leg Movement [G4b,d], Decline in Functional Status [G9], Incontinence [H1], Hypotension [I1i], CVA [I1t], Hemiplegia/Hemiparesis [I1v], Parkinson's [I1y], Seizure Disorder [I1aa], Syncope [J1m], Chronic/Acute Condition Makes Unstable [J5a, J5b], Unsteady Gait [J1n]</li> <li><b>Orthopedic:</b> Joint pain [J3g], Arthritis [I1i], Fracture of the Hip [I1m, J4c] Missing Limb (e.g., Amputation) [I1n], Osteoporosis [I1o]</li> <li><b>Perceptual:</b> Impaired Hearing [C1], Impaired Vision [D1, D2], Dizziness/Vertigo [J1f]</li> <li><b>Psychiatric or Cognitive:</b> Delirium [B5], Decline in Cognitive Skills [B6], Manic Depression [I1ff], Alzheimer's [I1q], Other Dementia [I1u]</li> </ul> </li> <li><b>External Factors.</b> <ul style="list-style-type: none"> <li><b>Medications:</b> Psychotropic meds [O4a,b, c,d], Cardiovascular Meds [from record] and Diuretics [O4e]</li> <li><b>Appliances/Devices</b> (time started): Peacemaker [from record], Cane/Walker/Crutch [G5a], Devices and Restraints [P4a,b,c,d,e]</li> <li><b>Environmental/Situational Hazards and, if relevant, Circumstances of Recent Fall(s):</b> [Review of situation and environment] Glare, Poor Illumination, Slippery Floors, Uneven Surfaces, Patterned Carpets, Foreign Objects in Walkway, New Arrangement of Objects, Recent Move Into/Within Facility, Proximity to Aggressive Resident, Time of Day, Time Since Meal, Type of Activity, Standing Still/Walking in a Crowded Area/Reaching/ Not Reaching, Responding to Bladder/Bowel Urgency.</li> </ul> </li> </ul>

## 12. RESIDENT ASSESSMENT PROTOCOL: NUTRITIONAL STATUS

### I. PROBLEM

Malnutrition is not a response to normal aging; it can arise from many causes. Its presence may signal the worsening of a life-threatening illness, and it should always be seen as a dramatic indicator of the resident's risk of sudden decline. Severe malnutrition is, however, relatively rare, and this RAP focuses on signs and symptoms that suggest that the resident may be at risk of becoming malnourished. For many who are triggered, there will be no obvious, outward signs of malnutrition. Prevention is the goal, and early detection is the key.

Early problem recognition and care planning can help to ensure appropriate and timely nutritional intervention. For many residents, simple adjustments in feeding patterns may be sufficient. For others, compensation or correction for food intake problems may be required.

Within a nutrition program, food intake is best accomplished via oral feedings. Tube (enteral) feeding is normally limited to residents who have a demonstrated inability to orally consume sufficient food to prevent major malnutrition or weight loss. Parenteral feeding is normally limited to life-saving situations where both oral and enteral feeding is contraindicated or inadequate to meet nutrient needs. Oral feeding is clearly preferred. Depending on the nature of the problem, residents can be encouraged to use finger foods; to take small bites; to use the tongue to move food in the mouth from side to side; to chew and swallow each bite; to avoid food that causes mouth pain, etc. Therapeutic programs can also be designed to review for the need for adaptive utensils to compensate for problems in sucking, closing lips, or grasping utensils; to help the confused resident maintain a fixed feeding routine, etc.

### II. TRIGGERS

*Malnutrition problem suggested if one or more of following observed:*

- Weight Loss  
[K3a = 1]
- Taste Alterations  
[K4a = checked]
- Leaves 25% or More Food Uneaten at Most Meals  
[K4c = checked]
- Parenteral/IV Feeding<sup>(a)</sup>  
[K5a = checked]
- Mechanically Altered Diet  
[K5c = checked]
- Syringe (Oral Feeding)  
[K5d = checked]
- Therapeutic Diet  
[K5e = checked]

- Pressure Ulcer<sup>(b)</sup>  
[M2a = 2, 3, or 4]

<sup>(a)</sup> **Note:** These items also trigger on the Dehydration/Fluid Maintenance RAP.

<sup>(b)</sup> **Note:** These items also trigger on the Pressure Ulcer RAP.

### III. GUIDELINES

#### RESIDENT FACTORS THAT MAY IMPEDE ABILITY TO CONSUME FOOD

##### Reduced Ability to Feed Self

Reduced ability to feed self can be due to arthritis, contractures, partial or total loss of voluntary arm movement, hemiplegia or quadriplegia, vision problems, inability to perform activities of daily living without significant assistance, and coma.

##### Chewing Problems

Residents with oral abscesses, ill-fitting dentures, teeth that are broken, loose, carious or missing, or those on mechanically altered diets frequently cannot eat enough food to meet their calorie and other nutrient needs. Significant weight loss can, in turn, result in poorly fitting dentures and infections that can lead to more weight loss.

##### Losses from Diarrhea or an Ostomy

##### Swallowing Problems

Swallowing problems arise in several contexts: the long-term result of chemotherapy, radiation therapy, or surgery for malignancy (including head and neck cancer); fear of swallowing because of COPD/emphysema/asthma; stroke; hemiplegia or quadriplegia; Alzheimer's disease or other dementia; and ALS.

##### Possible Medical Causes

Numerous conditions and diseases can result in increased nutrient requirements (calories, protein, vitamins, minerals, water, and fiber) for residents. Among these are cancer and cancer therapies, Parkinson's disease with tremors, septicemia, pneumonia, gastrointestinal influenza, fever, vomiting, diarrhea and other forms of malabsorption including excessive nutrient loss from ostomy, burns, pressure ulcers, COPD/ emphysema/asthma, Alzheimer's disease with concomitant pacing or wandering, and hyperthyroidism.

##### ***Malignancy and Nutritional Consequences of Chemotherapy, Radiation Therapy/Surgery -***

For the resident undergoing therapy aimed at remission or cure, aggressive nutritional support is necessary to achieve the goal; for the resident with incurable malignancy who is undergoing palliative therapy or is not responding to curative therapy, aggressive nutritional support is often medically inappropriate.

- Have the wishes of the resident and family concerning aggressive nutritional support been ascertained?

***Anemia (nutritional deficiency, not malnutrition)*** - A hematocrit of less than 41% is predictive of increased morbidity and mortality for residents.

- Are shortness of breath, weakness, paleness of mucous membranes and nailbeds, and/or clubbing of nails present?

***Chronic COPD*** - Increases calorie needs and can be complicated by an elevated fear of choking when eating or drinking.

***Shortness of Breath (frequently seen with congestive heart failure, hypertension, edema, and COPD/emphysema/asthma)*** - This is another condition that can cause a fear of eating and drinking, with a consequent reduction in food intake.

***Constipation/Intestinal Obstruction/Pain*** - Can inhibit appetite.

***Drug-Induced Anorexia*** - Often causes decreased or altered ability to taste and smell foods.

### ***Delirium***

## **PROBLEMS TO BE REVIEWED FOR POSSIBLE RELATIONSHIP TO NUTRITIONAL STATUS PROBLEM (Causal link)**

### **Mental Problems**

Mental retardation, Alzheimer's or other dementia, depression, paranoid fears that food is poisoned, and mental retardation can all lead to anorexia, resulting in significant amounts of uneaten food and subsequent weight loss.

### **Behavior Patterns and Problems**

Residents who are fearful, who pace or wander, withdraw from activities, cannot communicate, or refuse to communicate, often refuse to eat or will eat only a limited variety and amount of foods. Left untreated, behavior problems that result in refusal to eat can cause significant weight loss and subsequent malnutrition.

- Does resident use food to gain staff attention?
- Is resident unable to understand the importance of eating?

**Inability to Communicate**

For most residents, enjoying food and mealtimes crucially affects quality of life. Inability to make food and mealtime preferences known can result in a resident eating poorly, losing weight, and being unhappy. Malnutrition due to poor communication usually indicates substandard care. Early correction of communication problems, where possible, can prevent malnutrition.

- Does the area in which meals are served lend itself to socialization among residents? Is it a place where social communication can easily take place?
- Has there been a failure to provide adequate staff and/or adequate time in feeding or assisting residents to eat?
- Has there been a failure to recognize the need and supply adaptive feeding equipment for residents who can be helped to self-feed with such assistance?
- Is the resident capable of telling staff that he/she has a problem with the food being served- e.g., finds it to be unappetizing or unattractively presented?

**Amputation**

Weight loss may be due to an amputation.

## 12. NUTRITIONAL STATUS RAP KEY

(For MDS Version 2.0)

TRIGGER – REVISION	GUIDELINES
<p><i>Malnutrition problem suggested if one or more of following observed:</i></p> <ul style="list-style-type: none"> <li>• Weight Loss [K3a = 1]</li> <li>• Complains About Taste of Many Foods [K4a = checked]</li> <li>• Leaves 25% or More Food Uneaten at Most Meals [K4c = checked]</li> <li>• Parenteral/IV Feeding<sup>(a)</sup> [K5a = checked]</li> <li>• Mechanically Altered Diet [K5c = checked]</li> <li>• Syringe (Oral Feeding) [K5d = checked]</li> <li>• Therapeutic Diet [K5e = checked]</li> <li>• Pressure Ulcer<sup>(b)</sup> [M2a = 2, 3, or 4]</li> </ul>	<p><i>Factors that impede ability to consume foods:</i></p> <ul style="list-style-type: none"> <li>• Reduced Ability to Feed Self [G1h]</li> <li>• Ostomy Losses [H3i]</li> <li>• Chewing Problems [K1a]</li> <li>• Swallowing Problems [K1b]</li> <li>• <b>Possible Medical Causes.</b> Diarrhea [H2c], Anemia [I1oo], Cancer [I1pp], Pneumonia [I2e], Fever [J1h], Shortness of Breath [J1i], Chemotherapy [P1a], and Nutrient/Medication Inter-actions (e.g., Antipsychotics [O4a], Cardiac Drugs, Diuretics [O4e], Laxatives, Antacids) [from record]</li> </ul> <p><i>Problems to be reviewed for possible relationship to nutritional status problem:</i></p> <ul style="list-style-type: none"> <li>• <b>Mental Problems.</b> Mental Retard-ation [AB10], Fear that Food is Poisoned [from record; E1], Alzheimer's Disease [I1q], Other Dementia [I1u], Anxiety Disorders [I1dd], Depression [I1ee]</li> <li>• <b>Behavior Problems.</b> Pacing [E1n], Withdrawal From Activities of Interest [E1o], Wandering [E4a], Throwing Food [E4d], Slowness in Self-Feeding [G8c], Leaves 25% or More Food Uneaten [K4c]</li> <li>• <b>Inability to Communicate.</b> Comatose [B1], Unable to Make Food and Mealtime Preferences Known [C3g], Difficulty Making Self Understood [C4], Difficulty Understanding Others [C6], Aphasia [I1r]</li> <li>• <b>Functional Problems.</b> Loss of Upper Extremity Use [G4a,b,c], Amputation [I1n]</li> </ul>

<sup>(a)</sup> **Note:** These items also trigger on the Dehydration/Fluid Maintenance RAP.

<sup>(b)</sup> **Note:** These items also trigger on the Pressure Ulcer RAP.

## 13. RESIDENT ASSESSMENT PROTOCOL: FEEDING TUBES

### I. PROBLEM

The efficacy of tube feedings is difficult to assess. When the complications and problems are known to be high and the benefits difficult to determine, the efficacy of tube feedings as a long-term treatment for individuals requires careful evaluation.

Where residents have difficulty eating and staff have limited time to assist them, insertion of feeding tubes for the convenience of nursing staff is an unacceptable rationale for use. The only rationale for such feedings is demonstrated medical need to prevent malnutrition or dehydration. Even here, all possible alternatives should be explored prior to using such an approach for long-term feeding, and restoration to normal feeding should remain the goal throughout the treatment program.

Use of nasogastric and nasointestinal tubes can result in many complications including, but not limited to: agitation, self-extubation (removal of the tube by the patient), infections, aspiration, unintended misplacement of the tube in the trachea or lungs, inadvertent dislodgment, and pain.

This RAP focuses on reviewing the status of the resident using tubes. The Nutritional Status and Dehydration/Fluid Maintenance RAPs focus on resident needs that may warrant the use of tubes. To help clarify the latter issue, the following guidelines indicate the type of review process required to ensure that tubes are used in only the exceptional and acceptable situation. As a general rule, residents unable to swallow or eat food and unlikely to eat within a few days due to physical problems in chewing or swallowing (e.g., stroke or Parkinson's disease) or mental problems (e.g., Alzheimer's depression) should be assessed regarding the need for a nasogastric or nasointestinal tube or an alternative feeding method. In addition, if normal caloric intake is substantially impaired with endotracheal tubes or a tracheostomy, a nasogastric or nasointestinal tube may be necessary. Finally, tubes may be used to prevent meal-induced hypoxemia (insufficient oxygen to blood), which occurs with patients with COPD or other pulmonary problems that interfere with eating (e.g., use of oxygen, bronchodilators, tracheostomy, endotracheal tube with ventilator support).

1. Assess causes of poor nutritional status that may be identified and corrected as a first step in determining whether or not a nasogastric tube is necessary (see Nutritional Status RAP).
  - (a) Eating, swallowing and chewing disorders can negatively affect nutritional status (low weight in relation to height, weight loss, serum albumin level, and dietary problems) and the initial task is to determine the potential causes and period of time such problems are expected to persist. Recent lab work should also be reviewed to determine if there are electrolyte imbalances, fluid volume imbalances, BUN, creatinine, low serum albumin, and low serum protein levels before treatment decisions are made. Laboratory measurement of sodium and potassium tell whether or not an electrolyte imbalance exists. Residents taking diuretics may have potassium losses requiring potassium supplements. If these types of imbalances cannot be



corrected with oral nutrition and fluids or intravenous feedings, then a nasogastric or nasointestinal tube may be considered.

- (b) Determine whether fluid intake and hydration problems are short term or long term.
  - (c) Review for gastrointestinal distention, gastrointestinal hemorrhage, increased gastric acidity, potential for stress ulcers, and abdominal pain.
  - (d) Identify pulmonary problems (e.g., COPD and use of endotracheal tubes, tracheostomy, and other devices) that interfere with eating or dehydration.
  - (e) Review for mental status problems that interfere with eating such as depression, agitation, delirium, dementia, and mood disorders.
  - (f) Review for other problems such as cardiovascular disease or stroke.
2. Determine the need for such a tube. Examine alternatives.

Alternatives to nasogastric and nasointestinal tubes should always be considered. Intravenous feedings should be used for short-term therapy as a treatment of choice or at least a first option. Jejunostomy may have some advantages for long-term therapy, although may increase the risk for infection. A gastrostomy is better tolerated by agitated patients and those requiring prolonged therapy (more than 2 weeks). Gastrostomy with bolus feedings is preferable to nasogastric or nasointestinal tubes for long-term therapy for comfort reasons and to prevent the dislodgement and complications associated with nasal tubes. It is also less disfiguring as it can be completely hidden under clothing when not in use.

3. Assure informed consent and right to refuse treatment. Informed consent is essential before inserting a nasogastric or nasointestinal tube. Potential advantages, disadvantages, and potential complications need to be discussed. Resident preferences are normally given the greatest weight in decisions regarding tube feeding. State laws and judicial decisions must also be taken into account. If the resident is not competent to make the decision, a durable power of attorney or living will may determine who has the legal power to act on the resident's behalf. Where the resident is not competent or no power of attorney is in effect, the physician may have the responsibility for making a decision regarding the use of tube feeding. In any case, when illness is terminal and/or irreversible, technical means of providing fluids and nutrition can represent extraordinary rather than ordinary means of prolonging life.
4. Monitor for complications and correct/change procedures and feedings when necessary. Periodic changing of the nasogastric and intestinal tubes is necessary, although the appropriate interval for changing tubes is not clear. Assessment and determination of continued need should be completed before the tube is reinserted. Specific written orders by the physician are required.

5. Determine if the assessment for the resident's needs (calories, protein, and fluid) is met by the physician's enteral order (formula and flush). Determine if the actual formula and flush delivered is the same as ordered. Determine if there is a safe and sanitary handling of the feeding tube.

Individuals at risk of pulmonary aspiration (such as those with altered pharyngeal reflexes or unconsciousness) should be given a nasointestinal tube rather than a nasogastric tube, or other medical alternative. Those at risk for displacement of a nasogastric tube, such as those with coughing, vomiting, or endotracheally intubated, should also be given a nasointestinal tube rather than a nasogastric tube or other medical alternative.

## II. TRIGGER

*Consider efficacy and need for feeding tubes if:*

- Feeding Tube Present\*  
[K5b = checked]

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\* **Note:** This item also triggers on the Dehydration RAP.

## III. GUIDELINES

### COMPLICATIONS OF TUBE FEEDING

To reiterate, serious potential negative consequences include agitation, depression, mood disorders, self-extubation (removal of the tube by the patient), infections, aspirations, misplacement of tube in trachea or lung, pain, and tube dysfunction. Abnormal lab values can be expected and should be reviewed.

#### Infection in the Trachea or Lungs

Gastric organisms grow as a result of alkalizing (raising) the gastric pH. Gastric colonization results in transmission of gastric organisms to the trachea and the development of nosocomial pneumonia. In one study, colonization in 89% of patients within 4 days in ventilated patients with enteral nutrition was found with nosocomial respiratory infection in 62% of the patients studied. Symptoms of respiratory infections to be monitored include coughing, shortness of breath, fever, chest pain, respiratory arrest, delirium, confusion, and seizures.

#### Aspiration of Gastric Organisms into the Trachea and the Lungs

The incidence is difficult to determine, but most studies suggest it is relatively high.

#### Inadvertent Respiratory Placement of the Tube

This is the most common side effect of tube placement. In one study, 15% of small-bore nasogastric tubes and 27-50% of nasointestinal tubes were found to be out of their intended position upon radiographic examination without any other evidence of displacement.

Respiratory placement can occur in any patient, but is most likely in those who are neurologically depressed, heavily sedated, unable to gag, or endotracheally intubated. Detecting such placement is difficult; the following comments address this issue:

- Radiologic detection is the most definitive means to detect tube displacement. Under this procedure, pneumothorax and inadvertent placement in the respiratory tract can be avoided by first placing the feeding tube in the esophagus with the tip above the xiphoid process and then securing the tube and confirming placement with a chest x-ray. Then the tube may be advanced into the stomach and another x-ray taken to confirm the position. The stylet can then be removed and tube feeding begun. Unfortunately, nursing facilities are highly unlikely to have appropriate radiological technology and it is normally unreasonable to expect them to make arrangements to have patients transported to available radiology.
- pH testing of gastric aspirates to determine whether a tube is in the gastric, intestine, or the respiratory area is a promising method for testing feeding tube placement. However, parameters for various secretions from the three areas have not yet been clinically defined.
- Aspiration of visually recognizable gastrointestinal secretions, although a frequently used method of determining placement of tubes, is of questionable value as the visual characteristics of secretions can be similar to those from the respiratory tract.
- Auscultatory method: although “shooshing” or gurgling sounds can indicate placement in the stomach, the same sounds can occur when feeding tubes are inadvertently placed in the pharynx, esophagus and respiratory tract. Although small-bore tubes make the auscultatory method more difficult to use, large-bore nasogastric tubes may also be placed inadvertently in the respiratory tract producing false gurgling.

### **Inadvertent Dislodgement of the Tubes**

Nonweighted tubes appear to be more likely to be displaced than weighted tubes (with an attached bolus of mercury or tungsten at the tip).

### **Other Complications Include:**

Pain, epistaxis, pneumothorax, hydrothorax, nasal alar necrosis, nasopharyngitis, esophagitis, eustachitis, esophageal strictures, airway obstruction, pharyngeal and esophageal perforations. Symptoms of respiratory infections are to be reviewed.

### **Complications of Gastric Tract Infections and Gastric Problems**

Symptoms include abdominal pain, abdominal distention, stress ulcers, and gastric hemorrhage. There is also a need to monitor for complications including diarrhea, nausea, abdominal distention, and asphyxia. Such complications signal the need for a change in the type of formula or diagnostic work for other pathology.

**Complications for the Cardiovascular Systems**

Symptoms of cardiac distress or arrest to be monitored include chest pain, loss of heartbeat, loss of consciousness, and loss of breathing.

**Periodic Tests to Assure Positive Nitrogen Balance During Enteral Feeding**

Where positive balance is not achieved, a formula with high nitrogen density is needed. The absorptive capacity is impaired in many elderly patients so that serum fat and protein should be monitored. Effective nutrients should result in positive nitrogen balance, maintenance or increases in body weight, triceps skinfold and midarm muscle circumference maintenance, total iron binding capacity maintenance, and serum urea nitrogen level maintenance. Caloric intake and resident weight should be monitored on a regular basis.

### 13. FEEDING TUBES STATUS RAP KEY

(For MDS Version 2.0)

TRIGGER – REVISION	GUIDELINES
<p><i>Consider efficacy and need for feeding tubes if:</i></p> <ul style="list-style-type: none"> <li>Feeding Tube Present* [K5b = checked]</li> </ul>	<p><i>Factors that may impede removal of tube:</i></p> <ul style="list-style-type: none"> <li>Comatose [B1]</li> <li>Failure to Eat [K4c] AND Resists Assistance in Eating [E4e]</li> <li><b>Diagnoses:</b> CVA [I1t], Gastric Ulcers [I3]</li> <li>Gastric Bleeding [from record]</li> <li>Chewing Problem [K1a]</li> <li>Swallowing Problem [K1b]</li> <li>Mouth Pain [K1c]</li> <li>Length of Time Feeding Tube Has Been in Use [from record]</li> </ul> <p><i>Potential complications of tube feeding:</i></p> <ul style="list-style-type: none"> <li><b>Diagnostic Conditions:</b> Delirium [B5], Repetitive Physical Movements [E1n], Anxiety [I1dd], Depression [I1ee], Recurrent Lung Aspirations [J1k]</li> <li>Self-Extubation (removal of tube by resident) [from record]</li> <li>Limb Restraints in Use to Prevent Self-Extubation [P4d]</li> <li><b>Infections in Lung/Trachea:</b> Pneumonia [I2e], Fever [J1h], Shortness of Breath [J1i], Placement or Dislodgement of Tube in to Lung [from exam, record]</li> <li><b>Side-Effects of Enteral Feeding Solutions:</b> Constipation [H2b], Abdominal Distention or Pain [exam], Dehydrated [J1c]</li> <li><b>Respiratory Problems:</b> Pneumothorax, Hydrothorax, Airway Obstruction, Acute Respiratory Distress, Respiratory Distress [I3; from observation, record]</li> <li><b>Cardiac Distress/Arrest:</b> Chest Pain [J3c], Loss of Heart Beat, Loss of Consciousness, Loss of Breathing [from observation, record]</li> <li>Abnormal Lab Values [P9]</li> </ul>

\* **Note:** This item also triggers on the Dehydration RAP.

## 14. RESIDENT ASSESSMENT PROTOCOL: DEHYDRATION/FLUID MAINTENANCE

### I. PROBLEM

Water is necessary for the distribution of nutrients to cells, elimination of waste, regulation of body temperature, and countless other complex processes. On average, one can live only four days without water. Dehydration is a condition in which water or fluid loss (output) far exceeds fluid intake. The body becomes less able to maintain adequate blood pressure, deliver sufficient oxygen and nutrients to the cells, and rid itself of wastes. Many distressing symptoms can originate from these conditions, including:

- **Dizziness on Sitting/Standing** (blood pressure insufficient to supply oxygen and glucose to brain);
- **Confusion or Change in Mental Status** (decreased oxygen and glucose to brain);
- **Decreased Urine Output** (kidneys conserve water);
- **Decreased Skin Turgor**, dry mucous membranes (symptoms of dryness);
- **Constipation** (water insufficient to rid body of wastes); and
- **Fever** (water insufficient to maintain normal temperature).

Other possible consequences of dehydration include: decreased functional ability, predisposition to falls (because of orthostatic hypotension), fecal impaction, predisposition to infection, fluid and electrolyte disturbances, and ultimately death.

Nursing facility residents are particularly vulnerable to dehydration. It is often difficult or impossible to access fluids independently; the perception of thirst can be muted; the aged kidney can have a decreased ability to concentrate urine; and acute and chronic illness can alter fluid and electrolyte balance.

Unfortunately, many symptoms of this condition do not appear until significant fluid has been lost. Early signs and symptoms tend to be unreliable and nonspecific; staff will often disagree about the clinical indicators of dehydration for specific cases; and the identification of the most crucial symptoms of the condition are most difficult to identify among the aged. Early identification of dehydration is thus problematic, and the goal of this RAP is to identify any and all possible high-risk cases, permitting the introduction of programs to prevent the condition from occurring.

When dehydration is in fact observed, treatment objectives focus on restoring normal fluid volume, preferably orally. If the resident cannot drink a minimum recommended 1500 cc's of fluid every 24 hours, water and electrolyte deficits can be made up in a timely fashion via other routes to prevent dehydration. Fluids can be administered intravenously, subcutaneously, or by tube until resident is adequately hydrated and can take and retain sufficient fluids orally.

## II. TRIGGERS

*Dehydration suggested if one or more of following present:*

- Dehydration  
[J1c = checked]
- Insufficient Fluid/Did Not Consume All Liquids Provided  
[J1d = checked]
- UTI  
[I2j = checked]
- Dehydration Diagnosis  
[I3 = 276.5]
- Weight Fluctuation of 3+ Pounds  
[J1a = checked]
- Fever  
[J1h = checked]
- Internal Bleeding  
[J1j = checked]
- Parenteral/IV<sup>(a)</sup>  
[K5a = checked]
- Feeding Tube<sup>(b)</sup>  
[K5b = checked]
- Taking Diuretic  
[O4e = 1-7]

<sup>(a)</sup> **Note:** This item also triggers on the Nutritional Status RAP.

<sup>(b)</sup> **Note:** This item also triggers on the Feeding Tube RAP.

## III. GUIDELINES

### **RESIDENTS FACTORS THAT MAY IMPEDE ABILITY TO MAINTAIN FLUID BALANCE**

#### **Moderate/Severely Impaired Decision-Making Ability**

- Has there been a recent unexplainable change in mental status?
- Does resident seem unusually agitated or disoriented?
- Is resident delirious?
- Is resident comatose?
- Does dementia, aphasia or other condition seriously limit resident's understanding of others, or how well others can understand the resident?

#### **Comprehension/Communication Problems**

**Body Control Problems**

- Does resident require extensive assistance to transfer?
- Does resident freely move on the unit?
- Has there been recent ADL decline?

**Hand Dexterity Problem**

- Can resident grasp cup?

**Bowel Problems**

- Does the resident have constipation or a fecal impaction that may be interfering with fluid intake?

**Swallowing Problems**

- Does resident have mouth sore(s) ulcer(s)?
- Does resident refuse food, meals, meds?
- Can resident drink from a cup or suck through a straw?

**Use of Parenteral/IV**

- Are feeding tubes in use?

**RESIDENT DEHYDRATION RISK FACTORS**

Dehydration risk factors can be categorized in terms of whether they decrease **fluid intake** or **increase fluid loss**. The higher the number of factors present, the greater the risk of dehydration. Ongoing fluid loss through the lungs and skin occurs at a normal rate of approximately 500 cc/day and increases with rapid respiratory rate and sweating. Therefore, **decreased fluid intake** for any reason can lead to dehydration.

**Purposeful Restriction of Fluid Intake**

- Has there been a decrease in thirst perception?
- Is resident unaware of the need to intake sufficient fluids?
- Has resident or staff restricted intake to avoid urinary incontinence?
- Are fluids restricted because of diagnostic procedure or other health reason?
- Does sad mood, grief, or depression cause resident to refuse foods/liquids?

**Presence of Infection, Fever, Vomiting/Diarrhea/Nausea, Excessive Sweating (e.g., a Heat Wave)****Frequent Use of Laxatives, Enemas, Diuretics**



**Excessive Urine Output (Polyuria)**

Excessive urine output (polyuria) may be due to:

- Drugs (e.g., lithium, phenytoin), alcohol abuse
- Disease (e.g., diabetes mellitus, diabetes insipidus)
- Other conditions (e.g., hypoaldosteronism, hyperparathyroidism)

**Other Test Results**

Relevant test results to be considered:

- Does systolic/diastolic blood pressure drop 20 points on sitting/standing?
- On inspection, do oral mucous membranes appear dry?
- Does urine appear more concentrated and/or decreased in volume?

## 14. DEHYDRATION/FLUID MAINTENANCE STATUS RAP KEY

(For MDS Version 2.0)

TRIGGER – REVISION	GUIDELINES
<p><i>Dehydration suggested if one or more of the following present:</i></p> <ul style="list-style-type: none"> <li>Dehydrated [J1c = checked]</li> <li>Insufficient Fluid/Did Not Consume All Liquids [J1d = checked]</li> <li>UTI [I2j = checked]</li> <li>Dehydration Diagnosis [I3 = 276.5]</li> <li>Weight Fluctuation of 3+ Pounds [J1a = checked]</li> <li>Fever [J1h = checked]</li> <li>Internal Bleeding [J1j = checked]</li> <li>Parenteral/IV<sup>(a)</sup> [K5a = checked]</li> <li>Feeding Tube<sup>(b)</sup> [K5b = checked]</li> <li>Taking Diuretic [O4e = 1-7]</li> </ul>	<p><i>Resident factors that may impede ability to maintain fluid balance:</i></p> <ul style="list-style-type: none"> <li>Indicators of Delirium [B5]</li> <li>Moderate/Severely Impaired Decision-Making Ability [B4]</li> <li>Comprehension/Communication Problem [C4, C6]</li> <li>Body Control Problems [G3, G4]</li> <li>Hand Dexterity Problem [G4c]</li> <li>Constipation [H2b]</li> <li>Fecal Impaction [H2d]</li> <li>Swallowing Problem [K1b]</li> <li>Recent (Within 7 Days) Deterioration in ADLs [observe, ask Direct Care Staff]</li> </ul> <p><i>Resident dehydration risk factors:</i></p> <ul style="list-style-type: none"> <li>Purposeful Restriction of Fluids [J1d; from record]</li> <li>Diarrhea [H2c], Presence of Infection [I2], Fever [J1h], Vomiting [J1o], Nausea [from record], Excessive Sweating [from record, exam]</li> <li>Frequent Laxative/Enema/Diuretic Use [from record; H3h, O4e]</li> <li>Excessive Urine Output [from record, exam]</li> <li><b>Other tests:</b> Standing/sitting blood pressure, Status of oral mucous membranes, Urine output volume [from record]</li> </ul>

<sup>(a)</sup> **Note:** This item also triggers on the Nutritional Status RAP.

<sup>(b)</sup> **Note:** This item also triggers on the Feeding Tube RAP.

## 15. RESIDENT ASSESSMENT PROTOCOL: DENTAL CARE

### I. PROBLEM

Having teeth/dentures that function properly is an important requisite for nutritional adequacy. Having teeth/dentures that are clean and attractive can promote a resident's positive self-image as well as personal appearance thereby enhancing social interactions among residents, residents and staff, and residents and visitors. Good oral health can decrease a resident's risk of oral discomfort and in some instances, systemic illness from oral infections/cancer. Residents at greatest risk due to impaired abilities are primarily those with multiple medical conditions and medications, functional limitations in self-care, and communication deficits. Also at risk are more self-sufficient residents who lack motivation or have no consistent history of performing oral health functions. Residents with a history of alcohol and/or tobacco use have a greater risk of developing chronic oral lesions.

### II. TRIGGERS

*Dental care or oral health problem suggested if:*

- Mouth Debris (*Dental Care*)  
[L1a = checked]
- Less than Daily Cleaning of Teeth/Dentures (*Dental Care*)  
[L1f = not checked]
- Mouth Pain (*Oral Health*)  
[K1c = checked]
- Some/All Natural Teeth Lost and Does Not Have or Does Not Use Dentures (*Oral Health*)  
[L1c = checked]
- Broken, Loose or Carious Teeth (*Oral Health*)  
[L1d = checked]
- Inflamed Gums, oral Abscesses, Swollen/Bleeding Gums, Ulcers, Rashes (*Oral Health*)  
[L1e = checked]

### III. GUIDELINES

#### CONFOUNDING PROBLEMS

Debris on teeth, gums, and oral tissues may consist of food and bacteria-laden plaque that may begin to decay teeth or cause foul denture odors if not removed at least once daily. The purpose of this section is to examine confounding problems (from the MDS) that may be prohibiting a resident from adequately removing oral debris.

**Impaired Cognitive Skills**

- Does the resident need reminders to clean his/her teeth/dentures?
- Does he remember the steps necessary to complete oral hygiene?
- Would he benefit from task segmentation or supervision?

**Impaired Ability to Understand**

- Can the resident follow verbal directions or demonstrations for mouth care?
- If the resident has language difficulties, does he/she know what to do when handed a toothbrush/toothpaste and placed at the bathroom sink?

**Impaired Vision**

- Is resident's vision adequate for performing mouth care or checking its adequacy?

**Impaired Personal Hygiene**

- Did the resident receive supervision or assistance with oral/dental care during the last 7 days?
- Has he/she been assessed to see if he/she could do it independently?
- Does the resident have partial/total loss of voluntary arm movement or impaired hand dexterity that interferes with self-care?
- What would the resident need to be more independent?

**Resists ADL Assistance**

- Does the resident resist mouth care? If so, why (e.g., would rather do own care, painful mouth, apathy related to depression, not motivated - never cared for teeth/mouth, approach of staff, fear)?

**Motivation/Knowledge of Resident who is Independent in Oral/Dental Care but Still has Debris or Performs Care Less than Daily**

- Is he/she brushing adequately?
- Does he/she know that it is most important to brush near the gumline?
- Does he/she need to be shown how or be given reinforcement for maintaining good hygiene?

**Adaptive Equipment for Oral Hygiene**

- Has the resident tried or would he/she benefit from using a built-up, long-handled, or electric toothbrush, or suction brush for cleaning teeth?

- If resident has dentures, does he/she have denture cleaning devices (e.g., denture brush, soaking bath)?

### **Dry Mouth from Dehydration or Medications**

- Dry mouth can contribute to the formation of debris. Is the resident's lips, tongue, or mouth dry, sticky, or coated with film?
- Is the resident taking enough fluids? Is lip balm being applied to resident that has painful, cracking or bleeding lips?
- Is he/she taking any medications that can cause dry mouth (e.g., decongestants, antihistamines, diuretics, antihypertensives, antidepressants, antipsychotic, antineoplastics)?
- If these medications are necessary, has the resident tried saliva substitutes to stimulate moisture?

## **TREATMENT HISTORY AND OTHER RELEVANT FACTORS**

### **Mouth Pain or Sensitivity**

These factors can be related to either minor and easily treatable (e.g., gum irritation from ill-fitting dentures, localized periodontal problem) or more serious problems (e.g., oral abscess, cancer, advanced tooth decay or periodontal disease). The presence of pain may prevent the resident from eating adequately.

Residents with cognitive impairment and/or those who have difficulty making their needs known are difficult to assess. They may not complain specifically of mouth pain but may instead have decreased food intake or changes in behavior.

### **The Presence of Lesions, Ulcers, Inflammation, Bleeding, Swelling, or Rashes**

These symptoms may be representative of a minor problem (e.g., irritation from wearing dentures for 24 hours/day), which resolves when the cause is alleviated (e.g., combination of mouth care and leaving dentures out.) However, these signs may also indicate more serious problems, even dental emergencies (e.g., infection). If the problem does not resolve with specific local treatment after a couple of days OR if these signs are accompanied by pain, fever, lymphadenopathy (swollen glands) and/or signs of local infection (e.g., redness), chewing or swallowing problems, or changes in mental status or behavior, a dental consult should be considered.

### **Review Mouth for Candidiasis (white areas that appear to be removable anywhere in mouth, mostly on tongue)**

Perform this review on lethargic residents who have one or more of following diagnoses: stroke, Alzheimer's, Parkinson's, anxiety disorder, depression, diabetes, osteoporosis, or septicemia.